

**CORN AND SOYBEANS: Production Costs and Returns,  
Heartland Region, 2002-2003 1/**

Item	Corn		Soybeans	
	2002	2003	2002	2003
	<u>Dollars Per Planted Acre</u>		<u>Dollars Per Planted Acre</u>	
<b>Gross value of production</b> (excluding direct Government payments)				
Total gross value of production	327.93	331.06	225.59	237.02
<b>Operating costs</b>				
Seed	31.60	34.89	25.72	27.78
Fertilizer, lime, and gypsum	37.24	45.00	6.47	6.87
Soil conditioners	0.09	0.09	0.09	0.09
Manure	1.37	1.60	0.41	0.48
Chemicals	26.22	26.50	17.29	17.40
Custom operations 2/	9.69	10.09	5.35	5.48
Fuel, lube, and electricity	15.28	18.81	5.72	7.16
Repairs	12.35	12.63	8.62	8.73
Interest on operating capital	1.13	0.79	0.59	1.39
Total operating costs	134.97	150.40	70.26	75.38
<b>Allocated overhead</b>				
Hired labor	2.19	2.30	1.19	1.24
Opportunity cost of unpaid labor	23.03	23.79	14.57	15.09
Capital recovery of machinery and equipment	51.87	53.06	40.22	40.68
Opportunity cost of land (rental rate)	98.83	100.28	94.12	95.93
Taxes and insurance	5.07	5.19	5.75	5.89
General farm overhead	10.69	10.93	11.81	12.10
Total allocated overhead	191.68	195.55	167.66	170.93
Total costs listed	326.65	345.95	237.92	246.31
<b>Value of production less total costs listed</b>	1.28	-14.89	-12.33	-9.29
<b>Value of production less operating costs</b>	192.96	180.66	155.33	161.64
<b>Supporting information</b>				
Yield (bu./planted acre)	142	157	43	36
Price (dollars per bushel at harvest)	2.30	2.10	5.19	6.57
Enterprise size (planted acres) 3/	270	270	280	280
<b>Production practices 3/</b>				
Irrigated (percent)	5	5	5	5
Dryland (percent)	95	95	95	95

1/ The Heartland Region includes portions of South Dakota, Nebraska, Iowa, Missouri, Illinois, Indiana, Ohio, and Minnesota's Ag. Statistics Districts 4, 7, 8, and 9. Minnesota is also part of the Northern Crescent and Northern Great Plains Regions. Information is available about the Northern Crescent and Northern Great Plains Regions on the ERS websites listed below.

2/ Cost of custom operations, technical services, and commercial drying.

3/ Developed from survey base year 2001 for corn. Developed from base year 1997 for soybeans.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.  
Internet Web Site ([www.ers.usda.gov/data](http://www.ers.usda.gov/data))

**WHEAT: Production Costs and Returns, Northern Plains Region, 1996-2003 1/ 2/**

Item	1996	1997	1998	1999	2000	2001	2002	2003
	<u>Dollars per Planted Acre</u>							
<b>Gross value of production</b> (excluding direct Government payments)								
Wheat	143.56	93.61	100.1	85.49	83.98	77.94	80.59	121.34
Wheat straw	0.60	0.74	1.74	1.42	1.67	1.85	2.39	2.08
Total, gross value of production	144.16	94.35	101.84	86.91	85.65	79.79	82.98	123.42
<b>Cash expenses</b>								
Seed	8.93	7.64	7.64	6.36	6.19	6.34	6.33	7.90
Fertilizer, lime, and gypsum	15.63	14.85	14.78	13.46	13.91	19.66	14.40	19.79
Chemicals	8.27	8.33	10.61	10.28	10.15	10.14	10.09	10.05
Custom operations	2.72	2.64	4.04	3.82	4.00	3.77	3.13	4.69
Fuel, lube, and electricity	7.12	6.74	4.25	4.16	6.06	6.03	5.22	7.02
Repairs	14.09	12.77	8.10	8.85	9.85	9.66	9.57	10.38
Hired Labor	2.39	2.52	1.45	1.48	1.60	1.67	1.70	1.80
Other variable cash expenses 3/	0.03	0.03	0.16	0.16	0.16	0.17	0.17	0.18
Total, variable cash expenses	59.18	55.52	51.03	48.57	51.92	57.44	50.61	61.81
General farm overhead	4.54	5.35	6.32	6.42	6.49	6.76	6.97	7.14
Taxes and insurance	8.67	9.61	3.76	3.81	3.85	3.95	3.99	4.06
Interest	9.39	9.47	1.19	1.11	1.45	0.94	0.41	0.32
Total, fixed cash expenses	22.60	24.43	11.27	11.34	11.79	11.65	11.37	11.52
Total, cash expenses	81.78	79.95	62.04	59.91	63.71	69.09	61.98	73.33
<b>Gross value of production less cash expenses listed</b>	62.38	14.40	39.80	27.00	21.94	10.70	21.00	50.09
<b>Harvest-period price (dollars/bu.)</b>	4.86	3.81	2.91	2.68	2.50	2.66	3.55	3.21
<b>Yield (bu./planted acre)</b>	29.54	24.57	34.40	31.90	33.60	29.30	22.70	37.80

1/ Data for 1996-1997 refer to the Northern Plains Region which includes Minnesota, North Dakota, South Dakota, Montana, and Wyoming.

2/ Data for 1998 and later refer to the Northern Great Plains Region which includes North Dakota, South Dakota, and parts of Montana, Wyoming, Nebraska and Minnesota.

3/ Cost of purchased irrigation water and baling.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.

Internet Web Site ([www.ers.usda.gov/data/](http://www.ers.usda.gov/data/))**BARLEY: Production Costs and Returns, Northern Plains Region, 1996-2003 1/ 2/**

Item	1996	1997	1998	1999	2000	2001	2002	2003
	<u>Dollars per Planted Acre</u>							
<b>Gross value of production</b> (excluding direct Government payments)								
Barley	139.00	91.83	79.90	73.27	68.82	75.98	69.85	154.11
Barley straw	1.89	2.67	2.07	1.79	2.02	2.07	2.33	4.13
Total, gross value of production	140.89	94.50	81.97	75.06	70.84	78.05	72.18	158.24
<b>Cash expenses</b>								
Seed	7.63	6.77	6.30	5.73	5.84	5.84	5.81	8.21
Fertilizer, lime, and gypsum	17.11	16.68	14.49	13.52	13.80	18.15	14.16	16.43
Chemicals	7.86	7.97	8.11	8.14	7.77	7.93	7.88	12.16
Custom operations	3.41	3.39	3.49	3.68	3.64	3.77	3.72	6.13
Fuel, lube, and electricity	8.85	8.59	7.55	7.72	10.28	8.92	8.30	7.76
Repairs	15.21	13.87	14.08	14.25	14.91	15.02	14.58	14.24
Hired labor	3.98	4.40	4.50	4.65	4.88	5.23	5.18	1.97
Other variable cash expenses 3/	0.98	1.04	1.06	1.32	1.14	1.32	1.19	0.69
Total, variable cash expenses	65.03	62.71	59.58	59.01	62.26	66.18	60.82	67.59
General farm overhead	7.28	7.58	6.07	5.77	5.82	6.01	6.15	8.10
Taxes and insurance	12.86	12.13	11.14	10.39	10.70	10.70	10.89	6.77
Interest 4/	13.70	12.20	11.33	11.40	11.40	12.15	10.84	0.35
Total, fixed cash expenses	33.84	31.91	28.54	27.56	27.92	28.86	27.88	15.22
Total, cash expenses	98.87	94.62	88.12	86.57	90.18	95.04	88.70	82.81
<b>Gross value of production less cash expenses listed</b>	42.02	-0.12	-6.15	-11.51	-19.34	-16.99	-16.52	75.43
<b>Harvest-period price (dollars/bu.)</b>	2.82	2.11	1.69	1.73	1.59	1.83	2.14	2.82
<b>Yield (bu./planted acre)</b>	49.29	43.52	47.28	42.35	43.28	41.52	32.64	54.65

1/ Data for 1996-2002 refer to the Northern Plains Region which includes Minnesota, North Dakota, South Dakota, Montana, and Wyoming.

2/ Data for 2003 refer to the Northern Great Plains Region which includes North Dakota, portions of Nebraska, Colorado, Wyoming, South Dakota, Montana, and Minnesota Ag. Statistics District 10.

3/ Cost of purchased irrigation water and baling.

4/ Data for 2003 includes interest on operating inputs only.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.

Internet Web Site ([www.ers.usda.gov/data/](http://www.ers.usda.gov/data/))

**OATS: Production Costs and Returns, North Central Region, 1996-2003 1/**

Item	1996	1997	1998	1999	2000	2001	2002	2003
	<u>Dollars per Planted Acre</u>							
<b>Gross value of production</b> (excluding direct Government payments)								
Oats	119.06	104.46	64.03	68.26	69.90	85.42	103.02	119.02
Oats straw	44.21	49.88	44.21	45.34	46.48	48.18	48.77	49.35
Total, gross value of production	163.27	154.34	108.24	113.60	116.38	133.60	151.79	168.37
<b>Cash expenses</b>								
Seed	9.67	10.10	9.72	9.02	8.30	8.23	8.11	10.53
Fertilizer, lime, and gypsum	20.12	20.09	19.10	17.90	18.24	21.16	18.39	20.14
Chemicals	1.26	1.27	1.27	1.26	1.25	1.27	1.28	1.29
Custom operations 2/	5.75	5.71	5.73	5.75	5.76	5.82	5.78	5.80
Fuel, lube, and electricity	4.19	4.33	3.54	3.72	5.52	5.19	4.53	6.28
Repairs	6.50	7.63	7.10	6.70	6.57	6.69	6.77	6.80
Hired Labor	1.73	1.81	1.91	2.00	2.18	2.17	2.31	2.57
Other variable cash expenses 3/	1.63	1.84	1.63	1.67	1.71	1.78	1.80	1.82
Total, variable cash expenses	50.85	52.78	50.00	48.02	49.53	52.31	48.97	55.23
General farm overhead	4.52	5.31	5.01	5.08	5.21	5.38	5.50	5.63
Taxes and insurance	20.15	20.15	19.58	20.15	21.16	21.54	21.32	21.76
Interest	6.14	6.17	6.50	6.13	6.48	6.60	6.02	6.02
Total, fixed cash expenses	30.81	31.63	31.09	31.36	32.85	33.52	32.84	33.41
Total, cash expenses	81.66	84.41	81.09	79.38	82.38	85.83	81.81	88.64
<b>Gross value of production less cash expenses listed</b>	81.61	69.93	27.15	34.22	34.00	47.77	69.98	79.73
<b>Harvest-period price (dollars/bu.)</b>	2.02	1.62	1.09	1.10	1.02	1.32	1.67	1.67
<b>Yield (bu./planted acre)</b>	58.94	64.48	58.74	62.05	68.53	64.71	61.69	71.27

1/ The North Central Region includes Minnesota, Iowa, Wisconsin, Illinois, Michigan, and Ohio.

2/ Cost of custom operations and technical services.

3/ Cost of baling.

Note: Survey base changed in 1994.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.

Internet Web Site ([www.ers.usda.gov/data/](http://www.ers.usda.gov/data/))**SUGARBEETS: Production Costs and Returns, Red River Valley, 1996-2003 1/**

Item	1996	1997	1998	1999	2000	2001	2002	2003
	<u>Dollars per Planted Acre</u>							
<b>Gross value of production</b>								
Beets - gross value of production	851.03	697.50	733.42	739.11	723.06	752.49	721.69	791.90
<b>Cash expenses</b>								
Seed	42.91	44.81	46.39	45.55	44.89	45.01	48.02	47.12
Fertilizer	41.68	39.86	35.68	33.83	28.74	37.21	29.79	36.96
Chemicals	71.12	71.13	71.43	70.62	109.03	109.80	109.72	109.60
Custom operations	23.93	23.30	25.78	24.79	23.49	23.02	23.53	24.81
Fuel, lube, and electricity	21.87	20.73	18.43	19.18	24.86	24.55	23.07	24.40
Repairs	29.37	31.53	33.53	34.38	32.52	34.59	37.00	38.59
Hired labor	77.02	83.06	86.06	84.88	51.76	55.21	55.95	58.44
Purchased irrigation water	0.04	0.05	0.05	0.04	0.06	0.06	0.06	0.06
Freight and dirt hauling charges	11.93	11.81	11.25	10.85	13.62	13.91	13.88	15.08
Miscellaneous 2/	16.54	16.94	15.71	15.77	13.30	13.75	13.65	14.39
Hauling allowance (-)	-11.39	-11.36	-10.75	-10.36	-10.34	-10.44	-10.45	-10.45
Total, variable cash expenses	325.02	331.86	333.56	329.53	331.93	346.67	344.22	359.00
General farm overhead	20.75	30.90	28.98	29.48	27.55	28.30	28.92	29.58
Taxes and insurance	33.23	39.24	40.39	40.76	14.57	12.59	12.84	13.13
Interest	32.88	41.99	48.63	49.59	8.38	4.96	2.44	1.59
Total, fixed cash expenses	86.86	112.13	118.00	119.83	50.50	45.85	44.20	44.30
Total, cash expenses	411.88	443.99	451.56	449.36	382.43	392.52	388.42	403.30
<b>Gross value of production less cash expenses listed</b>	439.15	253.51	281.86	289.75	340.63	366.97	333.27	388.60
<b>Season-average price (dollars/ton)</b>	46.76	38.43	35.21	37.16	35.10	42.27	39.01	39.01
<b>Yield (net tons/planted acre)</b>	18.20	18.15	20.83	19.89	20.60	17.80	18.50	20.30

1/ The Red River Valley includes Minnesota and eastern North Dakota.

2/ Includes costs deducted by the processor from the net payment and noncash benefits.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.

Internet Web Site ([www.ers.usda.gov/data/](http://www.ers.usda.gov/data/))

**HOG PRODUCTION: Farrow-to-Finish, Farrow-to-Feeder,  
Feeder Pig-to-Finish, Costs and Returns, Heartland Region, 2003 1/**

Item	All Hog Producers	Farrow to Finish	Farrow to Feeder 2/	Feeder Pig to Finish
	<u>Dollars per Cwt Gain 3/</u>			
<b>Gross value of production</b>				
Market hogs	36.29	35.62	1.78	43.59
Feeder pigs	10.16	0.72	102.91	0.15
Cull stock	0.99	1.74	2.53	0.01
Breeding stock	0.44	0.15	0.17	0.01
Inventory change	0.00	0.06	-4.57	1.04
Other income 4/	1.72	1.63	1.39	1.87
Total gross value of production	49.60	39.92	104.21	46.67
<b>Operating costs</b>				
Feed				
Grain	7.65	9.77	1.96	6.10
Protein sources	6.64	9.40	0.92	4.11
Complete mixes	8.27	4.96	26.98	9.46
Other feed items 5/	0.22	0.37	0.24	0.08
Total feed costs	22.78	24.50	30.10	19.75
Other				
Feeder pigs	12.61	0.07	0.59	27.28
Veterinary and medicine	1.21	1.66	2.77	0.55
Bedding and litter	0.04	0.04	0.06	0.02
Marketing	0.66	0.35	3.83	0.57
Custom services	0.33	0.28	0.29	0.41
Fuel, lube, and electricity	1.58	1.69	4.08	1.00
Repairs	0.91	1.28	1.15	0.42
Other operating costs 6/	0.04	0.03	0.04	0.03
Interest on operating capital	0.21	0.16	0.23	0.26
Total operating costs	40.37	30.06	43.14	50.29
<b>Allocated overhead</b>				
Hired labor	2.80	3.18	14.06	0.49
Opportunity cost of unpaid labor	5.72	7.44	7.59	3.35
Capital recovery of machinery and equipment	10.99	11.82	28.04	6.88
Opportunity cost of land (rental rate)	0.05	0.06	0.07	0.02
Taxes and insurance	0.49	0.54	0.94	0.37
General farm overhead	1.05	1.16	1.61	0.80
Total, allocated overhead	21.10	24.20	52.31	11.91
Total costs listed	61.47	54.26	95.45	62.20
<b>Value of production less total costs listed</b>	-11.87	-14.34	8.76	-15.53
<b>Value of production less operating costs</b>	9.23	9.86	61.07	-3.62
<b>Supporting information</b>				
Production arrangement (percent of production)				
Independent	70	99	22	47
Under contract	30	1	78	53
Size of operation (head sold/removed)				
Market hogs	1,924	1,712	76	2,770
Feeder pigs	1,112	56	10,125	13

1/ The Heartland Region includes portions of South Dakota, Nebraska, Iowa, Missouri, Illinois, Indiana, Ohio, and Minnesota's Ag. Statistics Districts 4, 7, 8, and 9. Minnesota is also part of the Northern Crescent and Northern Great Plains Regions. Information is available about the Northern Crescent and Northern Great Plains Regions on the ERS website. Developed from survey base year, 1998.

2/ Farrow to Feeder data are for the United States (Heartland Region data are not available).

3/ Cwt gain = (cwt sold - cwt purchased) ÷ cwt inventory change.

4/ Value of manure production.

5/ Milk replacer, milk, milk by-products, antibiotics, and other medicated additives.

6/ Costs for odor control, fees, permits, licenses, and other regulatory costs.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.  
Internet Web Site ([www.ers.usda.gov/data/](http://www.ers.usda.gov/data/))

**COW-CALF: Production Costs and Returns, Heartland Region, 2002-2003 1/**

Item	2002	2003
	<u>Dollars per Bred Cow</u>	
<b>Gross value of production</b>		
Steer calves	171.63	187.53
Heifer calves	115.41	126.15
Yearling steers	34.99	40.79
Yearling heifers	10.80	12.55
Other cattle	64.53	75.11
Total gross value of production	401.63	446.51
<b>Operating costs</b>		
Purchased cattle for backgrounding	23.32	26.60
Feed		
Concentrates and other feed	26.80	26.86
Supplemental feed	39.80	41.96
Harvested forages	200.89	189.51
Cropland pasture	13.21	13.36
Private pasture	74.48	76.01
Public land	0.36	0.35
Total feed costs	355.54	348.05
Other		
Veterinary and medicine	38.48	39.47
Bedding and litter	1.34	1.37
Marketing	4.27	4.38
Custom operations	40.18	41.12
Fuel, lube, and electricity	16.16	16.16
Repairs	29.24	29.96
Interest on operating inputs	4.40	2.76
Total operating costs	512.93	509.87
<b>Allocated overhead</b>		
Hired labor	0.61	0.64
Opportunity cost of unpaid labor	219.85	230.47
Capital recovery cost of machinery and equipment	280.58	281.21
Opportunity cost of land	5.55	5.72
Taxes and insurance	44.22	44.94
General farm overhead	84.08	85.88
Total allocated overhead	634.89	648.86
Total cost listed	1,147.82	1,158.73
<b>Value of production less total costs listed</b>	-746.19	-712.22
<b>Value of production less operating costs</b>	-111.30	-63.36

1/ The Heartland Region includes portions of South Dakota, Nebraska, Iowa, Missouri, Illinois, Indiana, Ohio, and Minnesota's Ag. Statistics Districts 4, 7, 8, and 9. Minnesota is also part of the Northern Crescent and Northern Great Plains Regions. Information is available about the Northern Crescent and Northern Great Plains Regions on the ERS website listed below.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.  
Internet Web Site ([www.ers.usda.gov/data/](http://www.ers.usda.gov/data/))



**MILK: Production Costs and Returns, per cwt sold, 2002-2003**

Item	Heartland 1/		Northern Crescent 2/	
	2002	2003	2002	2003
	<u>Dollars per Cwt.</u>			
<b>Gross value of production</b>				
Milk	12.33	12.93	12.91	13.41
Cattle	1.41	1.65	1.14	1.28
Other income 3/	0.82	0.97	0.66	0.75
Total gross value of production	14.56	15.55	14.71	15.44
<b>Operating costs</b>				
Feed				
Feed grains	2.24	2.35	1.45	1.49
Hay and straw	2.77	2.54	1.31	1.35
Complete feed mixes	0.90	0.96	1.16	1.25
Liquid whey and milk replacer	0.10	0.11	0.09	0.10
Silage	0.76	0.77	0.95	0.91
Grazed pasture and cropland	0.13	0.13	0.07	0.07
Other feed item 4/	1.64	1.59	1.23	1.29
Total feed costs	8.54	8.45	6.26	6.46
Other				
Veterinary and medicine	0.76	0.78	0.78	0.81
Bedding and litter	0.22	0.23	0.23	0.24
Marketing	0.22	0.22	0.31	0.32
Custom service	0.53	0.54	0.48	0.49
Fuel, lube, and electricity	0.49	0.56	0.51	0.58
Repairs	0.60	0.60	0.62	0.64
Other operating costs 5/	0.00	0.00	0.00	0.00
Interest on operating capital	0.10	0.06	0.08	0.05
Total operating costs	11.46	11.44	9.27	9.59
<b>Allocated overhead</b>				
Hired labor	0.81	0.85	1.28	1.38
Opportunity cost of unpaid labor	5.79	5.90	5.27	5.29
Capital recovery of machinery and equipment 6/	4.75	4.71	4.25	4.29
Opportunity cost of land (rental rate)	0.09	0.09	0.08	0.08
Taxes and insurance	0.20	0.20	0.22	0.23
General farm overhead	0.60	0.61	0.64	0.66
Total allocated overhead	12.24	12.36	11.74	11.93
Total cost listed	23.70	23.80	21.01	21.52
<b>Value of production less total costs listed</b>	-9.14	-8.25	-6.30	-6.08
<b>Value of production less operating costs</b>	3.10	4.11	5.44	5.85
<b>Supporting Information</b>				
Milk cows (head per farm)	60	61	69	70
Output per cow (pounds)	18,533	18,564	19,829	19,852
Milking frequency greater than twice per day (percent of farms)	1.82	1.95	3.09	3.13
Homegrown feed cost (percent of total feed cost)	59	59	49	0.08
Milk cows injected with BST (head per farm)	10	11	14	0.23

1/ The Heartland Region includes MN Agricultural Statistics Districts (ASD) 4, 7, 8, and 9, SD ASD 6 and 9, NE ASD 3 and 6, IA, MO ASD 1, 2, 3, 4, 5, and 9, IL, IN, KY ASD 1 and 2, and Ohio ASD 1, 4, 5, 7 and 8. The first data available for the Heartland Region is 2000.

2/ The Northern Crescent Region includes New England, New York ASD 1, 2, 3, 5, 6, 8 and 9, Ohio ASD 2 and 3, MI, WI and MN ASD 2, 3, 5 and 6. The first data available for the Northern Crescent Region is 2000.

3/ Income from renting or leasing dairy stock to other operations; renting space to other dairy operations; co-op patronage dividends associated with the dairy; assessment rebates, refunds, and other dairy related resources; and manure production.

4/ Cotton seed meal, protein supplements, protein by products, vitamin or mineral supplements, nonprotein byproducts, alfalfa cubes or pellets, green chop, corn stalks, and antibiotics and other medicated additives.

5/ Manure disposal fees, permits, licenses, and odor control costs.

6/ Machine and equipment, and housing, manure handling, and feed storage structures, and dairy breeding herd.

Source: Economic Research Service, United States Department of Agriculture, Washington, D.C.  
Internet Web Site ([www.ers.usda.gov/data/](http://www.ers.usda.gov/data/))